PATENT ABSTRACTS OF JAPAN

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(54) DIMMER DEVICE FOR SELF-EMISSION TYPE PICTURE DISPLAY

(57)Abstract:
PURPOSE: To keep the "brightness" of a display image constant regardless of the luminance environment at the outside of a display device and the luminance of a display picture itself by providing an equivalent light screen luminance measuring device measuring an equivalent light screen luminance to a light screen luminance in an eyeball of an observer decided by the luminance environment around a display image observed by the observer and a fovea centralis adaptation luminance measuring device measuring the fovea centralis adaptation luminance of the eyeball of the observer.

CONSTITUTION: The light screen luminance Lev equivalent to the light screen luminance in the eyeball of the observer decided by the luminance environment of the display image including a picture around the display image on a CRT display 5 is measured by the equivalent light screen luminance measuring device 6. On the other hand, the fovea centralis adaptation luminance Lf of the observer is measured by the fovea centralis adaptation luminance measuring device 9. A luminance difference discriminating threshold value ΔL of the observer is obtained by adding an output signal of the 1st function converter 7 and an output signal of the 2nd function converter 10 at an adder 8. A dimmer 11 controls the luminance of the display image in proportion to the output signal of the adder 8. When the luminance environment of the surrounding is changed, the luminance Lo of the display image is controlled so that the ratio (Lo/ΔL) of the luminance Lo of the display image to the luminance difference discriminating threshold value ΔL of the observer is constant.